

Appl. No. 10/534,950
Amdt. dated Nov. 12, 2008
Reply to Office action of July 9, 2008

REMARKS

In view of both the amendments presented above and the following discussion, the Applicants submit that none of the claims now pending in the application is obvious under the provisions of 35 USC § 103. Thus, the Applicants believe that all of these claims are now in allowable form.

If the Examiner believes that there are any unresolved issues in any of the claims now pending in the application, the Examiner is urged to telephone Peter L. Michaelson, Esq. at (732) 542-7800 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Rejections under 35 U.S.C. § 103

Claims 1-5 and 8-9 stand rejected under 35 U.S.C. § 103 as being unpatentable over Liao in view of Qiang.

The Examiner urges that Liao discloses an acidic emulsified mayonnaise-like food without eggs wherein the content of protein is less than 0.5% by mass, edible oil, vinegar, salt, polysaccharides and seasonings. The Examiner concedes that Liao does not specifically disclose an esterified compound comprising starch or a hydrolysate thereof and an alkenylsuccinic acid wherein the content of the esterified compound is from 0.1 to 5.0% by mass of the

total mass of the acidic emulsified mayonnaise-like food, and a thickening polysaccharide of from 0.01 to 2.5% by mass of the total mass of the acidic emulsified mayonnaise-like food wherein the mass ratio of the esterified compound to the thickening polysaccharide is from 2:1 to 10:1.

However, the Examiner urges that Qiang discloses the use of an octenyl succinate starch which is an esterified compound comprising a starch or hydrolysate and an alkenylsuccinic acid at 1% and xanthan gum at 0.05% in salad dressings for the purpose of improving the dispersion of the substances in the product, emulsion stability, appearance and taste.

The conclusion is the reached that it would have been obvious to one skilled in the art to use the starch and gum of Qiang in the Liao disclosure to provide a food substance having improved stability, appearance and taste. This rejection is traversed as follows:

Liao discloses a mayonnaise-like food without eggs or with 0.01% to 3.0% by weight of eggs (yolk). However, it should be noted that Liao neither discloses nor suggests the concept of the present invention wherein a mayonnaise-like food containing an esterified compound comprising a potato starch or hydrolysate thereof and an alkenylsuccinic acid, an esterified compound comprising a waxy cornstarch or a hydrolysate thereof and

alkenylsuccinic acid and a thickening polysaccharide. Additionally, Liao fails to disclose that a mayonnaise-like food can retain its smooth appearance for a long time by adding thereto two or more different esterified compounds comprising a starch and alkenylsuccinic acid, more specifically, by adding thereto both a combination of an esterified compound comprising a potato starch or a hydrolysate thereof and an alkenylsuccinic acid and an esterified compound comprising a waxy cornstarch or a hydrolysate thereof and alkenylsuccinic acid.

Furthermore, Liao neither discloses nor suggests the object of the present invention, namely, the suppression of flavor deterioration and viscosity reduction with time as well as enhancement of emulsion stability and shape retaining ability. Accordingly, Liao only discloses a mayonnaise-like food not containing eggs or merely containing a small amount of eggs and fails to disclose Applicants' invention.

The Qiang reference discloses a salad dressing containing 1.00% of octenylsuccinate starch with high viscosity, 0.05% of xanthan gum and 2.5% of yolk. It is further disclosed that the octenylsuccinate starch and the xanthan gum enhance dispensability of the ingredients and improve the emulsion stability approach and taste of the salad dressing.

However, a careful analysis of the Qiang disclosure reveals that it does not disclose or suggest the use of a combination of two or more different esterified compounds comprising a starch and alkenylsuccinic acid.

More specifically, Qiang does not disclose or suggest that the smooth appearance can be kept for a longer time by using the combination of two or more different esterified compounds, for example, a combination of an esterified compound comprising a potato starch or a hydrolysate thereof and an alkenylsuccinic acid and an esterified compound comprising a waxy cornstarch or a hydrolysate thereof and alkenylsuccinic acid.

In other words, it is apparent that Qiang neither discloses nor suggests the basis of the present invention, namely, a mayonnaise-like food containing an esterified compound of a potato starch or hydrolysate thereof and an alkenylsuccinic acid, an esterified compound comprising a waxy cornstarch or a hydrolysate thereof and alkenylsuccinic acid and a thickening polysaccharide. Accordingly, it is apparent that no basis exists for combining the teachings of Qiang with the primary reference and it is urged that the rejection be withdrawn.

Claims 6 and 7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Liao in view of Qiang and Chen et al.

The Examiner contends that Liao and Qiang disclose the preparation of starch modified by alkenylsuccinic anhydrides and its use in the food industry and further contends that Chen et al disclose the preparation of starch sodium alkenylsuccinate.

The Examiner concedes that Liao and Qiang disclose the food product noted but fail, to disclose where the esterified compound is an esterified product comprising a potato starch or a hydrolysate thereof and an alkenylsuccinic acid having a substitution of ester groups from 0.005 to 0.020.

The Examiner further urges that Chen discloses the use of cornstarch to prepare alkenylsuccinate starch with a degree of substitution of ester groups of 0.018, 0.017, 0.007, etc, for the purpose of providing a thickened food. It is further urged that cornstarch and potato starch have similar compositions and are substantially interchangeable. The conclusion reached is that it would have been obvious to use a starch with the substitution disclosed by Chen in the Liao disclosure to provide a thickened food. This rejection is traversed as follows:

Chen discloses that an alkenylsuccinate starch can be prepared using cornstarch. However, it is crystal clear that Chen fails to disclose or suggest an acidic emulsified mayonnaise-like food and fails to disclose or

suggest the significant aspect of the present invention, namely, a mayonnaise-like food containing an esterified compound comprising a starch and alkenylsuccinic acid. Accordingly, it is also apparent that Chen fails to suggest or disclose any mayonnaise-like food in which the protein content is reduced to less than 0.5% by mass by adding thereto an esterified compound comprising a starch and alkenylsuccinic acid and a thickening polysaccharide.

Still further, Chen neither discloses nor suggests that the smooth appearance of the mayonnaise-like food can be kept for a long time by including therein a combination of two or more different esterified compounds comprising a starch and alkenylsuccinic acid therein, in particular, a combination of an esterified compound comprising a potato starch or a hydrolysate thereof and an alkenylsuccinic acid and an esterified compound comprising a waxy cornstarch or a hydrolysate thereof and alkenylsuccinic acid. Still further, Chen neither discloses nor suggests the object of the present invention, namely, the suppression of flavor deterioration and viscosity reduction with the passage of time and improvement of emulsion stability and shape retaining ability.

Still further, the waxy cornstarch employed in the practice of the present invention is obtained from glutinous (waxy) corn and is merely one of the corn starches in the broad sense. However, when the term

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"cornstarch" is used alone, it refers to a starch obtained from non-glutinous (non-waxy) corn. Accordingly, the cornstarch employed by Chen is completely different from the waxy cornstarch employed in the practice of the present invention. Accordingly, Applicants' invention cannot be attained based upon any combination with the Chen invention and it is urged that the rejection be withdrawn.

Based upon the foregoing, Applicants' invention cannot be negated by combining the cited references. Liao merely mentions a mayonnaise-like food without eggs or with a small amount of eggs. Qiang fails to describe the use of two different esterified compounds composed of alkenylsuccinic acid and a potato starch or waxy cornstarch and the Chen disclosure merely mentions an alkenylsuccinate starch prepared from a cornstarch that is totally different from the waxy cornstarch used in the present invention.

Conclusion

In light of the foregoing it is respectfully requested that the rejections be withdrawn and that the claims be passed to issue.

Respectfully submitted,



Peter L. Michaelson, Attorney
Reg. No. 30,090
Customer No. 007265
(732) 542-7800

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